

## TECHNICAL NOTES

### **SOURCES OF DATA**

**BIRTHS, DEATHS AND FETAL DEATHS:** Birth, death and fetal death certificates were the source documents for data on vital events to Delaware residents. A copy of each certificate is included as Appendices F, G and H.

The cut-off date for data in this report was October 31 after the close of the calendar year. Any data pertaining to an event for which a certificate was filed after this date, are not included in this report. It is possible that data obtained directly from the Delaware Health Statistics Center (DHSC) may differ slightly from that which appear in this report. If this should occur, it is the result of an update that was made after the cut-off date for this report.

Births and deaths to Delaware residents which took place in other states are included in this report. The inclusion of these data is made possible by an agreement among all registration areas in the United States for the exchange of copies of resident certificates.

**MARRIAGES AND DIVORCES:** Each of Delaware's three counties has a state office for the collection of marriage certificates. All of these certificates are processed and maintained by the Office of Vital Statistics in the Division of Public Health's central office in Dover. Copies of divorce certificates are forwarded to the Office of Vital Statistics from the Delaware Family Court system so that certain selected data items can be processed for statistical purposes. A copy of each of these certificates is included as Appendices I and J.

**INDUCED TERMINATIONS OF PREGNANCY:** Beginning on January 1, 1997, all induced terminations of pregnancy were required to be reported to the Department. Reports of induced termination of pregnancy are filed directly with the DHSC. The reports are filed for statistical purposes only and are shredded and discarded when all reports for the data year have been coded. ITOP records are currently not being exchanged among the states, so events to Delaware residents occurring out-of-state are not included in this report. A copy of the reporting form is included as Appendix K.

**REPORTED PREGNANCIES:** Reported pregnancies refer to live births, fetal deaths, and induced terminations of pregnancy (ITOP). When used in combination, these three events can yield a great deal of information regarding pregnancy and pregnancy

outcomes that is not possible by looking at each individual event separately. For example, live birth rates can be calculated using live births in conjunction with population data. However, differences observed between live birth rates in two or more geographic areas or within the same area at different points in time may be due to differences in the rate of pregnancy, differences in pregnancy outcomes (i.e., live birth, fetal death, or ITOP), or a combination of these factors. Only pregnancy rates allow such questions to be thoroughly examined.

**POPULATION PROJECTIONS:** The state, county and city population figures used in this report are estimates and projections produced by the Delaware Population Consortium (DPC). The DHSC is a member of the DPC and supplies birth and death data used in making the projections. Copies of the most recent projections for Delaware's population by age, race, sex and geographic location are available from the DHSC.

### **DATA QUALITY**

**QUERY AND FIELD PROGRAMS:** The quality of vital statistics data presented in this report is directly related to the completeness and accuracy of the information contained on the certificates and forms. The DHSC works with the Office of Vital Statistics to ensure that the information received is as complete and accurate as possible. The Office of Vital Statistics operates two programs related to improving the quality of information received on vital records--the query and field programs.

The query program is a system used to follow-back to hospital and clinic personnel, funeral directors and/or physicians concerning data quality problems. The follow-back contact is usually via mail and/or telephone. The field program attempts to improve vital statistics data quality by educating the participants in the vital registration system (i.e., hospital personnel, funeral directors, physicians, etc.) of the uses and importance of vital statistics data. The field program completes this mission by conducting seminars with various associations representing the individuals listed above.

The National Center for Health Statistics (NCHS) monitors Delaware's coding of statistical data on death certificates. A 20 percent sample of death records coded and submitted monthly by the state are used as a quality control mechanism by NCHS. NCHS codes these sample records independently and then conducts an item-by-item computer match of codes entered by the state and NCHS. NCHS has established an upper limit of two percent for coding differences involving any one data item of these sample records, with the exception of cause of death. NCHS independently codes cause of death information.

**COMPUTER EDITS AND DATA PROCESSING:** Another dimension of data quality is related to the procedures and methodologies used in preparing the data for presentation. Beginning with the 1991 Annual Vital Statistics Report, methodologies for editing and processing vital data were standardized to match the procedures used by NCHS in tabulating national vital statistics data. These procedures include checking for valid codes, computation of data items (e.g., age, live-birth order, weeks of gestation, duration of marriage, interval between divorce and remarriage), consistency checks between data items (e.g., age and education), and imputation of missing values.

Standardized imputation procedures are of particular importance because they ensure that Delaware's data are comparable to that published for the United States by NCHS. In general, the adoption of these new procedures has not produced large differences when compared with previous reports. One new procedure of particular interest is the method for computing weeks of gestation as reported in the Natality Section. A new item on the 1989 U.S. Standard Certificate of Live Birth, "clinical estimate of gestation," permits substitution for weeks of gestation in two situations: (a) when the date of the last normal menstrual period (LMP) is incomplete or missing; and (b) when the computed weeks of gestation is inconsistent with reported birth weight. Substitution with this item has resulted in a smaller "Unknown" category for weeks of gestation.

**FETAL DEATHS:** In terms of the completeness of the data, the reporting of deaths and live births is considered to be virtually complete. However, in Delaware, a spontaneous termination of pregnancy is not required to be reported when the fetus weighs less than 350 grams or, when weight is unattainable, if the duration of pregnancy is less than 20 weeks. National estimates (Ventura, Taffel and Mosher, 1985) indicate that over 90 percent of all spontaneous terminations of pregnancy may occur before this 20 week period and thus go unreported. In addition, the exchange agreement among states for resident fetal death records is relatively new and it is unknown whether complete exchange is taking place. The result is that a large number of spontaneous terminations are not reported.

### **GEOGRAPHY ALLOCATION**

In Delaware's registration program, as in other states, vital events are classified geographically in two ways. The first way is by place of occurrence (i.e., the actual state and county in which the birth or death took place). The second and more customary way is by place of residence (i.e., the state, county, and census tract) stated to be the usual residence of the decedent in the case of death, or of the mother in the case of a newborn.

While occurrence statistics are accurate and have both administrative value and some statistical importance, residence statistics are by far the more useful tool in developing health indices for planning and evaluation purposes. The natality and mortality statistics provided in this report are based upon Delaware residence data. However, the marriage and divorce statistics are occurrence data. This is primarily due to the fact that two separate residences are usually involved in a marriage or a divorce, and there are no accepted standard procedures for classification of residence in these events.

Allocation of vital events by place of residence is sometimes difficult because classification depends entirely on a statement of the usual place of residence furnished by the informant at the time the original certificate is completed. For various reasons, this statement may be incorrect or incomplete. However, in recent years, the DHSC has invested a great deal of effort into editing of address information leading to a significant improvement in data quality.

In any case, geographical allocation is generally a problem only at the level of census tract. Resident counts at the State level are, for all practical purposes, complete. County resident figures are substantially correct and can be used with a high degree of confidence.

Most of the data provided in this report are available at the census tract level. This information can be obtained by contacting the DHSC.

## **BIRTH WEIGHT**

This report presents birth weight in grams in order to provide data comparable to that published for the United States and other countries. For those live birth certificates where birth weight is reported in pounds and ounces, the Center converts the birth weight into grams.

The equivalents of the gram intervals in pounds and ounces are as follows:

499 grams or less	=	1 lb.	1 oz.	or less	
500 - 999 grams	=	1 lb.	2 ozs.	-	2 lbs. 3ozs.
1,000 - 1,499 grams	=	2 lbs.	4 ozs.	-	3 lbs. 4ozs.
1,500 - 1,999 grams	=	3 lbs.	5 ozs.	-	4 lbs. 6ozs.
2,000 - 2,499 grams	=	4 lbs.	7 ozs.	-	5 lbs. 8ozs.
2,500 - 2,999 grams	=	5 lbs.	9 ozs.	-	6 lbs. 9ozs.
3,000 - 3,499 grams	=	6 lbs.	10 ozs.	-	7 lbs. 11ozs.
3,500 - 3,999 grams	=	7 lbs.	12 ozs.	-	8 lbs. 12ozs.
4,000 - 4,499 grams	=	8 lbs.	13 ozs.	-	9 lbs. 14ozs.
4,500 - 4,999 grams	=	9 lbs.	15 ozs.	-	11 lbs. 0ozs.
5,000 grams or more	=	11 lbs.	1 oz.	or more	

## **RATES**

Absolute counts of births and deaths do not readily lend themselves to analysis and comparison between years and various geographic areas because of differences in population characteristics (e.g., age, sex, and race). In order to account for such differences, the absolute number of events is converted to a relative number such as a percentage, rate, ratio, or index. These conversions are made by relating the number of events to the population at risk in a particular area at a specified time.

Precautions should always be taken when comparing any rates based on vital events. Both the number of events and the characteristics of the population are important to take into account when interpreting a rate.

All statistics are subject to random variation.<sup>1</sup> Rates based on a relatively small number of events tend to be subject to more random variation than rates based on a large number of events.

In addition to the problem of small numbers, demographic characteristics of populations (i.e., age, race and sex) can affect the comparability of rates. Since mortality rates vary substantially by age, race and sex, comparisons between rates from populations that differ in these characteristics could be misleading. However, there are two methods that can be used separately or in combination to improve the comparability of mortality rates. The first method involves comparing rates for specific age, race, and/or sex groups in the populations of interest. With this method, the rates are easily calculated and very specific groups may be compared. However, when very specific groups are compared the numbers are often small, and relationships between the overall populations are difficult to determine.

The second method is a more sophisticated technique that statistically "adjusts" for demographic differences between populations and allows direct comparisons between overall population rates. The major disadvantages of

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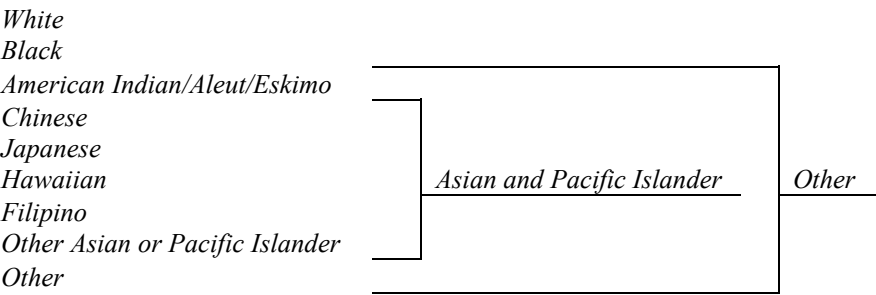
<sup>1</sup>See Appendix A for more details.

adjusted rates are that they can be cumbersome to calculate without the aid of a computer and they only have meaning when compared to other rates adjusted in the same manner.

In this report, both of these methods were used. The methods used to produce age-specific and adjusted rates are described in Appendix B.

**RACE**

All Delaware vital records contain an item(s) regarding race. Race is self-reported in all records except on death certificates where it is provided by an informant. Although the question allows for a free form response, all race data are grouped for purposes of data analysis into the following categories established by NCHS:



The categories *Chinese*, *Japanese*, *Hawaiian*, *Filipino*, and *Other Asian or Pacific Islander* can be combined to form the category *Asian or Pacific Islander*. For purposes of this report, *American Indian/Aleut/Eskimo*, *Chinese*, *Japanese*, *Hawaiian*, *Filipino*, *Other Asian or Pacific Islander*, and *Other* have been combined to form the category *Other*.

In the case of death, race of decedent from the death certificate is reported in all tables except in the birth cohort (see next paragraph). However, in the case of birth and fetal death, race is indicated on the birth and fetal death certificates for the mother and father only (i.e., race of the newborn is not given). Consequently, birth and fetal death data are reported by race of the mother in most tables throughout this report. However, some tables containing historical birth data prior to 1989 are reported by race of child. For these tables, race of child was imputed using criteria established by NCHS.

In the birth cohort section of this report, birth certificate data for infants dying in the first year of life are combined with information from their death certificates. Therefore, data are available for race of the mother and race of the deceased infant for each case. In the vast majority of these cases, the race listed for the mother and infant are the same. However, in a small number of cases

the race of the mother and infant differ. In order to maintain consistency with data in the natality section, race of the mother is used for all tables in the birth cohort section.

### **HISPANIC ORIGIN**

Beginning in 1989, a specific question regarding Hispanic origin was added to the birth and death certificates. This question is considered to be separate from the Race question. Therefore, a person may report Hispanic origin in combination with any race category. The Hispanic question has two parts. The first simply asks whether the person is of Hispanic origin (Yes or No). The second part is a free-form item that asks for the specific origin (e.g., *Cuban, Mexican, Puerto Rican*, etc.).

### **MISSING INFORMATION REGARDING FATHERS**

The Delaware vital statistics law specifies that information regarding the father should not be entered on the birth certificate if the mother is single. As such, there is no information regarding the father for the vast majority of births to single mothers. However, in a few cases, information about the father was entered on the certificate when the mother was single. Some tables in the natality section (e.g., births to parents of Hispanic origin) may contain information regarding the father that includes such cases.

Beginning on January 1, 1995, a new program was instituted to allow fathers to acknowledge paternity through completion of a simple form in cases where the mother and father are not married. This form can be completed at any time up to the child's eighteenth birthday. When such acknowledgments are completed at the hospital at the time of birth, the DHSC is able to add father information to its electronic data base.

### **SOURCE OF PAYMENT FOR DELIVERY**

Beginning with the 1991 data year, the Center began obtaining information regarding the source of payment for delivery on birth certificates (private insurance, Medicaid, and self pay). However, this information was not available for Delaware resident mothers giving birth in other states (approximately 5 percent of all resident births). For purposes of this report, all such mothers were assigned to the private insurance category. This assignment was based on detailed analyses of the characteristics of these mothers. These analyses indicated that the demographic characteristics of these mothers very closely matched the characteristics of Delaware resident mothers who gave birth within the State and had private insurance listed as their source of payment. Furthermore, an examination of Medicaid data indicated that it is extremely rare for Medicaid mothers to give birth out-of-state.

### **METHOD OF DELIVERY**

The number of cases reported for the category “Vaginal birth after previous C-section” (VBAC) of the METHOD OF DELIVERY question on the birth certificate may represent an undercount. Due to way that the question was worded (see Appendix F), persons completing the form may have sometimes reported VBACs in the “Vaginal” category. The DHSC staff has been working to improve the data quality of this question in two ways. The question has been reworded so that it is much clearer on the Electronic Birth Certificate (EBC). Over 95 percent of all birth certificates were filed through the EBC. For those records that were not filed using the EBC, efforts were made to train the staff about the proper way to complete the question.

### **2000 POPULATION STANDARD**

Beginning with the 1999 report, all mortality rates were age-adjusted using the projected 2000 U.S. population standard. All previous versions of the vital statistics report used the 1940 U.S. population standard from the census of the same year. All historical mortality data have been adjusted to the new standard to allow comparisons over time. Comparisons between rates using the old standard and the new standard are not valid and should not be made.

The change to the 2000 standard was adopted by NCHS beginning with 1999 mortality data. The primary reason for the change was to establish a uniform standard across all federal and state health agencies. A more detailed explanation of the rationale can be found in a special report from NCHS (Anderson and Rosenberg, 1998).

The DHSC has not done an extensive comparison of the effects of changing to the 2000 standard on mortality rates. However, the limited comparisons that were made suggest that the overall relationships and trends are similar but not always identical to those that have been previously reported.



## **APPENDIX A**

### **RANDOM VARIATION**

In this report, the number of vital events represent complete counts for the U.S., Delaware and county populations. Therefore, they are not subject to sampling error, although they are subject to certain errors in the registration process such as age misreporting. However, the number of events and the corresponding rates are subject to random variation. That is, the rates that actually occurred may be considered as one of a large number of possible outcomes that could have arisen under the same circumstances (National Office of Vital Statistics, 1961). As a result, rates in a given population may tend to fluctuate from year to year even when the health of the population is unchanged. Random variation in rates based on a relatively small number of events, tends to be larger than for rates based upon events that occur more frequently. Delaware rates for some events (e.g., infant deaths) are particularly subject to such variations due to the small number of events that occur by definition in a relatively small population. Therefore, caution should be exercised when drawing conclusions about rates based on small numbers.

The issue of random variation was handled in two ways in this report. First, five-year average rates were reported instead of annual rates. This tended to reduce the effects of random variation since the number of events in a five-year period was much larger. Second, tests of statistical significance were used to make comparisons between Delaware/county and U.S. rates when appropriate. These statistical tests were used to determine the chance that the observed differences would occur in populations with equal rates by random variation alone. The methods used to calculate cause-specific mortality and infant mortality rates are described in Appendices B and C, respectively.

## **APPENDIX B**

### **METHODS FOR ADJUSTMENT AND STATISTICAL ANALYSIS OF FIVE-YEAR AVERAGE MORTALITY RATES**

In order to make meaningful comparisons between mortality rates for Delaware and the U.S., differences in the age, race, and sex characteristics of the two populations should be taken into account. For example, one would expect that the mortality rate for heart disease would be high in a population that has a high proportion of older individuals. A comparison of a heart disease mortality rate from this older population to the rate from a much younger population could lead to erroneous conclusions if the differences in the age distribution of the two populations were ignored. Similar arguments can be made for differences in race and sex characteristics of two populations. However, a statistical methodology called age adjustment can be used to produce rates which can be directly compared.

In the Mortality Section of this report, running five-year average<sup>2</sup> age-specific, crude and adjusted rates are reported for the U.S., Delaware, and the three counties for selected causes of death. Age-race-sex-adjusted rates are reported for the total population, and age-adjusted rates are reported by race and sex. An example of the methods used to calculate these rates is provided below. The symbols used in the example are shown in parentheses.

**CALCULATION OF AGE-SPECIFIC AND CAUSE-SPECIFIC CRUDE MORTALITY RATES:** Age-specific rates per 100,000 population were calculated by dividing the number of deaths in a particular age group ( $N_i$ ) by the population in that age group ( $P_i$ ) and multiplying the result by 100,000. Cause-specific crude rates per 100,000 population were calculated by dividing the total number of deaths for a particular cause ( $N_T$ ) by the total population ( $P_T$ ) and multiplying by 100,000.

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<sup>2</sup>See Appendix A for rationale concerning use of five-year average rates.

**EXAMPLE**  
CALCULATION OF FIVE-YEAR AVERAGE AGE-SPECIFIC,  
CRUDE AND ADJUSTED MORTALITY RATES

Diseases of the Heart (Delaware, 1994-1998)  
White Males

Age	Observed Number of Deaths Five-Year Total ( $N_i$ )	Estimated Delaware Population Five-Year Total ( $P_i$ )	Age-Specific Mortality Rate Per Person $\left(\frac{N_i}{P_i}\right)$	Age -Specific Mortality Rate Per 100,000 Population $ASR_i = \frac{N_i}{P_i} \times 100,000$	Standard Population 2000 U.S. Population ( $S_i$ )	Estimated Number of Deaths Rounded to whole number $E_i = \frac{N_i}{P_i} \times S_i$
0-4	9	99,424	0.000091	9.1	18,987,000	1,719
5-14	3	195,633	0.000015	1.5	39,977,000	613
15-24	4	184,099	0.000022	2.2	38,077,000	827
25-34	22	241,041	0.000091	9.1	37,233,000	3,398
35-44	118	248,072	0.000476	47.6	44,659,000	21,243
45-54	277	181,231	0.001528	152.8	37,030,000	56,598
55-64	520	121,793	0.004270	427.0	23,961,000	102,302
65-74	1,168	109,595	0.010657	1065.7	18,136,000	193,283
75-84	1,333	53,198	0.025057	2505.7	12,315,000	308,581
85+	753	10,107	0.074503	7450.3	4,259,000	317,308
Total/Rate	4,208	1,444,193	0.002914	291.4	274,634,000	1,005,872

k=Number of age groups=10

$N_T$ =Five-year total number of deaths= $\sum_{i=1}^k N_i = 4,208$

$P_T$ = Five-year total Delaware population= $\sum_{i=1}^k P_i = 1,444,193$

CR=Five-year average crude mortality rate per 100,000 population= $\frac{N_T}{P_T} \times 100,000 = 291.4$

$S_T$ =Total standard population= $\sum_{i=1}^k S_i = 274,634,000$

$E_T$ =Expected total number of deaths= $\sum_{i=1}^k E_i = 1,005,872$

AR=Five-year average age-adjusted rate per 100,000 population= $\frac{E_T}{S_T} \times 100,000 = \frac{1,005,872}{274,634,000} \times 100,000 = 366.3$

$\sigma_{AR}^2$  = Variance of the adjusted rate= $\sum_{i=1}^k \left( S_i / S_T \right)^2 \left[ \frac{(N_i / P_i)(1 - N_i / P_i)}{P_i} \right] (100,000)^2 = 34.68$

**CALCULATION OF ADJUSTED MORTALITY RATES:** Adjusted rates<sup>3</sup> were calculated by the direct method using the 2000 U.S. population as standard.<sup>4</sup> The direct method produces the rate that would be expected if the population of interest had the same population characteristics (race, sex, age, etc.) as the standard population.

Adjusted rates were calculated in the following manner. The expected number of deaths in each age group was determined by multiplying the age-specific rates per person ( $N_i/P_i$ ) by the corresponding age-specific standard population total ( $S_i$ ). Adjusted rates (AR) per 100,000 population were calculated by dividing the expected total number of deaths ( $E_T$ ) by the total standard population and multiplying by 100,000.

The variance ( $\sigma_{AR}^2$ ) of each adjusted rate was obtained using the formula shown in the example. This variance measures the amount of random variation<sup>5</sup> in the adjusted rate.

**STATISTICAL TESTS:** One of two test statistics was used to determine whether the observed differences between Delaware/county ( $AR_{DE}$ ) and U.S. ( $AR_{U.S.}$ ) adjusted rates were a reflection of "actual" differences or a result of random variation.

When the Delaware/county adjusted rate was based on 50 or more deaths ( $N_T \geq 50$ ), the test statistic

$$z = \frac{AR_{DE} - AR_{U.S.}}{\sqrt{\sigma_{AR_{DE}}^2 + \sigma_{AR_{U.S.}}^2}}$$

was calculated. Under the null hypothesis (i.e., the Delaware/county and U.S. adjusted rates are equal), the z test statistic follows the standardized normal distribution.

When the Delaware/county rate was based on less than 50 deaths ( $N_T < 50$ ), the test statistic

$$t = \frac{AR_{DE}}{AR_{U.S.}}$$

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<sup>3</sup>The example in this Appendix demonstrates the age adjustment methodology. Although the methodology for age-race-sex adjustment is slightly more complicated, it is very similar to the methodology described.

<sup>4</sup>The Delaware Health Statistics Center has the capability to produce rates adjusted to other standard populations (e.g., 1940, 1970, and 1980 U.S. populations) upon request.

<sup>5</sup>See Appendix A for a discussion of random variation.

was used<sup>6</sup>. This statistic was treated as the ratio of a Poisson distributed variable to its expectation (National Cancer Institute, 1962).

Critical values for hypothesis testing were determined according to the method described in Pearson & Hartley (1970, p. 81).

**LEVELS OF SIGNIFICANCE:** All statistical comparisons between adjusted rates were two-tailed tests using a 0.05 alpha level of significance. Under this criterion, the observed differences were considered to be statistically significant if they would have occurred by random variation alone 5% of the time or less.

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<sup>6</sup>When the number of deaths in Delaware/county was zero ( $N_T=0$ ), no statistical comparisons were made between Delaware/county and U.S. rates.

## APPENDIX C

### METHODS FOR CALCULATION AND STATISTICAL ANALYSIS OF FIVE-YEAR AVERAGE INFANT MORTALITY RATES

Due to the small number of infant deaths in Delaware, slight year-to-year changes in the number of deaths can lead to substantial fluctuations (referred to in statistics as random variation) in annual rates. In many cases, this problem makes interpretation of annual rates extremely difficult, if not impossible. Since there is far less random fluctuation in five-year average (FYA) rates, they are much better for assessing the health status of infants in Delaware.<sup>7</sup> When running FYA rates (e.g., rates for 1980-1984, 1981-1985, and 1982-1986) are used, the patterns of changes in infant mortality over a number of years can be determined.

A description of the methods used to calculate the running FYA rates and the statistical methodology used to compare Delaware and U.S. rates are described below.

**FIVE-YEAR AVERAGE INFANT MORTALITY RATES:** Running FYA infant, neonatal, and postneonatal mortality rates (see Definitions) were calculated by race for the U.S., Delaware, and Delaware's three counties. The rates (i.e., infant, neonatal, or postneonatal) were computed by dividing the total number of deaths over each five-year period by the total number of live births over the same five-year period and multiplying the result by 1,000. Rates were calculated for five-year periods beginning with 1978-1982 to provide running FYA rates.

**STATISTICAL TESTS:** The observed differences between Delaware and U.S. FYA rates were tested statistically to determine whether they were a reflection of actual differences or a result of random variation. Due to the small number of infant deaths by county, differences between county and U.S. rates were not tested for significance and should be interpreted with caution.

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<sup>7</sup>See Appendix A for a description of random variation and rationale for use of five-year average rates.

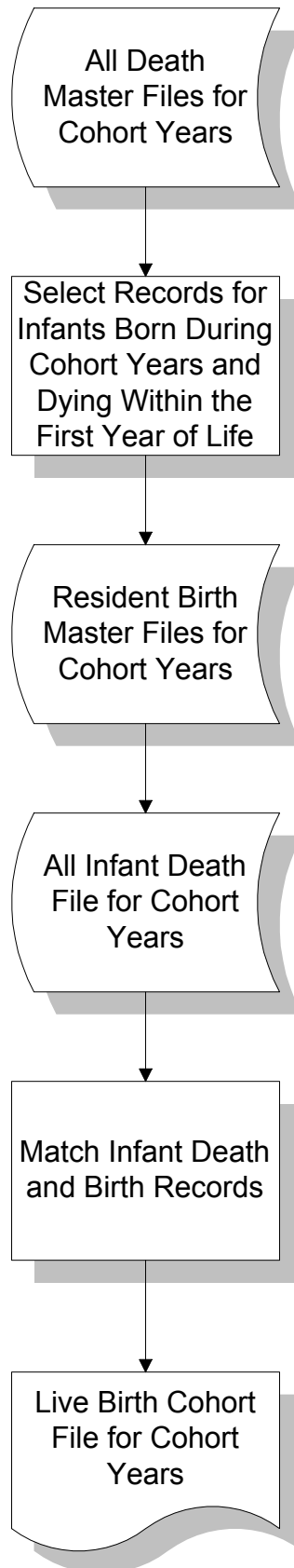
The Delaware and U.S. rates were considered to be significantly different (two-tailed test; alpha level = 0.05) if the observed difference between the rates exceeded twice the estimated standard error of the differences (National Center for Health Statistics, 1988). The standard error of the differences (SE), an estimate of random variation, was calculated as follows:

$$SE = 2\sqrt{\frac{R^2_{U.S.}}{N_{U.S.}} + \frac{R^2_{DE}}{N_{DE}}}$$

where  $R_{U.S.}$  and  $R_{DE}$  are the observed rates for the two populations, and  $N_{U.S.}$  and  $N_{DE}$  are the number of deaths on which the rates were based.

## APPENDIX D

### CREATION OF A LIVE BIRTH COHORT FILE





## **APPENDIX E**

### **METHODS FOR CALCULATION OF YEARS OF POTENTIAL LIFE LOST (YPLL)**

Years of Potential Life Lost (YPLL) is a statistic used to measure the number of years of life lost in a population when persons in that population die prematurely. YPLL provides valuable information regarding the causes of death that contribute most significantly to premature mortality. For example, accidents accounted for 4.4 percent of all deaths in Delaware during 1988-1992. However, this same cause accounted for 17.1 percent of all YPLL during the same period.

In order to calculate YPLL, a standard must be chosen (e.g., 65 years of age) as a reference point for years of life lost. The number of years of life lost is then calculated for each person dying before the standard age. For example, assume that a standard of 65 years of age is chosen. A person dying at age 39 has lost 26 years of life relative to the standard (i.e., 65 years - 39 years = 26 years). To obtain YPLL, the number of years of life lost for each person in the population dying before the standard age is summed. Persons dying at 65 years of age or older would be excluded from the analysis because they have not lost years of life relative to the standard.

For the present report, a standard of 65 years of age was chosen to calculate YPLL. Although other standards are sometimes used (e.g., 70 years, 75 years, or life expectancy), 65 years was chosen because it is the most frequently used standard by the Centers for Disease Control and the National Center for Health Statistics. The standard of 65 years is not used with the implication that it is the maximum potential for years of life. Rather, it is used because deaths before age 65 are considered to be very premature.

**APPENDIX F**  
**STATE OF DELAWARE CERTIFICATE OF LIVE BIRTH**

DOC. NO.  
35-05-02-90-07-03

OFFICE OF  
VITAL  
STATISTICS

**CERTIFICATE OF LIVE BIRTH**

*State of Delaware*

(107)

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

STATE FILE NUMBER

<b>CHILD</b>	1. CHILD'S NAME (FIRST, MIDDLE, LAST)		2. DATE OF BIRTH (MO., DAY, YR.)		3. TIME OF BIRTH <div style="text-align: right;">M</div>	
	4. SEX		5. CITY, TOWN, OR LOCATION OF BIRTH		6. COUNTY OF BIRTH	
<b>CERTIFIER ATTENDANT</b>	7. PLACE OF BIRTH: <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> HOSPITAL</span><span><input type="checkbox"/> RESIDENCE</span><span><input type="checkbox"/> CLINIC (DOCTOR'S OFFICE)</span></div> <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> FREESTANDING BIRTH CENTER</span><span><input type="checkbox"/> OTHER (SPECIFY)</span></div>			8. FACILITY NAME (IF NOT INSTITUTION, GIVE STREET AND NUMBER)		
	9. I CERTIFY THAT THIS CHILD WAS BORN ALIVE AT THE PLACE AND TIME ON THE DATE STATED <div style="margin-top: 5px;">SIGNATURE </div>		10. DATE SIGNED (MO., DAY, YR.)		11. ATTENDANT'S NAME AND TITLE (IF OTHER THAN CERTIFIER) (TYPE/PRINT) NAME _____ <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> M.D.</span><span><input type="checkbox"/> D.O.</span><span><input type="checkbox"/> C.N.M.</span><span><input type="checkbox"/> OTHER MIDWIFE</span></div> <div><input type="checkbox"/> OTHER (SPECIFY)</div>	
<b>MOTHER</b>	12. CERTIFIER'S NAME AND TITLE (TYPE/PRINT) NAME _____ <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> M.D.</span><span><input type="checkbox"/> D.O.</span><span><input type="checkbox"/> HOSPITAL ADMIN.</span><span><input type="checkbox"/> C.N.M.</span><span><input type="checkbox"/> OTHER MIDWIFE</span></div> <div><input type="checkbox"/> OTHER (SPECIFY)</div>			13. ATTENDANT'S MAILING ADDRESS (STREET AND NUMBER OR RURAL ROUTE NUMBER, CITY OR TOWN, STATE, ZIP CODE)		
	14. REGISTRAR'S SIGNATURE 			15. DATE FILED BY REGISTRAR (MO., DAY, YR.)		
<b>FATHER</b>	16A. MOTHER'S FULL MAIDEN NAME (FIRST, MIDDLE, LAST)		16B. MARRIED SURNAME		17. DATE OF BIRTH (MO., DAY, YR.)	
	18. BIRTHPLACE (STATE OR FOREIGN COUNTRY)		19A. RESIDENCE - STATE		19B. COUNTY	
<b>INFORMANT</b>	19C. CITY, TOWN OR LOCATION		19D. STREET AND NUMBER		19E. INSIDE CITY LIMITS <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> YES</span><span><input type="checkbox"/> NO</span></div>	
	20. FATHER'S NAME (FIRST, MIDDLE, LAST)		21. DATE OF BIRTH (MO., DAY, YR.)		22. BIRTHPLACE (STATE OR FOREIGN COUNTRY)	
23. I CERTIFY THAT THE PERSONAL INFORMATION PROVIDED ON THIS CERTIFICATE IS TRUE TO THE BEST OF MY KNOWLEDGE SIGNATURE OF PARENT OR OTHER INFORMANT						
<b>THE FOLLOWING CONFIDENTIAL STATISTICAL INFORMATION WILL NOT APPEAR ON A CERTIFIED COPY OF THIS BIRTH RECORD.</b>						
PERMISSION GRANTED TO SOCIAL SECURITY ADMINISTRATION TO USE DATA FROM THIS FORM FOR THE PURPOSE OF ISSUING A SOCIAL SECURITY NUMBER <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> YES</span><span><input type="checkbox"/> NO</span></div>						
PERMISSION GRANTED TO SOCIAL SECURITY ADMINISTRATION TO RELEASE ISSUED NUMBER TO THE DELAWARE OFFICE OF VITAL STATISTICS <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> YES</span><span><input type="checkbox"/> NO</span></div>						
MOTHER'S SOCIAL SECURITY NUMBER			FATHER'S SOCIAL SECURITY NUMBER			
DID MOTHER PARTICIPATE IN ANY OF THE FOLLOWING PROGRAMS DURING PREGNANCY? (CHECK ALL THAT APPLY) <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> WIC</span><span><input type="checkbox"/> AFDC</span><span><input type="checkbox"/> MEDICAID</span><span><input type="checkbox"/> FOOD STAMP</span><span><input type="checkbox"/> OTHER (SPECIFY)</span><span><input type="checkbox"/> NONE</span></div>						
PRINCIPAL SOURCE OF PAYMENT FOR DELIVERY <div style="display: flex; justify-content: space-between;"><span><input type="checkbox"/> MEDICAID</span><span><input type="checkbox"/> PRIVATE INSURANCE</span><span><input type="checkbox"/> SELF PAY</span><span><input type="checkbox"/> OTHER (SPECIFY)</span></div>						

DEATH UNDER ONE YEAR  
OF AGE ENTER STATE FILE  
NUMBER OF DEATH  
CERTIFICATE FOR THIS  
CHILD.

REV. 9/90

(1) ORIGINAL COPY — STATE

# **APPENDIX F (cont.)** **STATE OF DELAWARE CERTIFICATE OF LIVE BIRTH** **STATISTICAL SECTION**

INFORMATION FOR MEDICAL AND HEALTH USE ONLY					
24. OF HISPANIC ORIGIN? SPECIFY NO OR YES - IF YES, SPECIFY CUBAN, MEXICAN, PUERTO RICAN, ETC.		25. RACE - AMERICAN INDIAN, BLACK, WHITE, ETC. (SPECIFY BELOW)		26. EDUCATION (SPECIFY ONLY HIGHEST GRADE COMPLETED)	
				ELEMENTARY/ SECONDARY (0-12) COLLEGE (1-4 OR 5+)	
24A. <input type="checkbox"/> NO <input type="checkbox"/> YES		25A.		26A.	
SPECIFY:					
24B. <input type="checkbox"/> NO <input type="checkbox"/> YES		25B.		26B.	
SPECIFY:					
27. OCCUPATION AND BUSINESS/INDUSTRY (WORKED DURING LAST YEAR)		28. DATE LAST NORMAL MENSES BEGAN (MONTH, DAY, YEAR)		29. MONTH OF PREGNANCY PRENATAL CARE BEGAN FIRST, SECOND, THIRD, ETC. (SPECIFY)	
OCCUPATION		BUSINESS/INDUSTRY			
27A.		27B.		27C.	
27D.		27E.		27F.	
28. PREGNANCY HISTORY (COMPLETE EACH SECTION)		29. MOTHER MARRIED? (AT BIRTH, CONCEPTION, OR ANY TIME BETWEEN) (YES OR NO)		30. DATE LAST NORMAL MENSES BEGAN (MONTH, DAY, YEAR)	
LIVE BIRTHS (DO NOT INCLUDE THIS CHILD)		OTHER TERMINATION (SPONTANEOUS AND INDUCED AT ANY TIME AFTER CONCEPTION)			
28A. NOW LIVING		28B. NOW DEAD		28C. DATE OF LAST LIVE BIRTH (MONTH, YEAR)	
NUMBER		NUMBER		NUMBER	
<input type="checkbox"/> NONE		<input type="checkbox"/> NONE		<input type="checkbox"/> NONE	
28D. DATE OF LAST LIVE BIRTH (MONTH, YEAR)		28E. DATE OF LAST OTHER TERMINATION (MONTH, YEAR)		28F. DATE OF LAST OTHER TERMINATION (MONTH, YEAR)	
31. MONTH OF PREGNANCY PRENATAL CARE BEGAN FIRST, SECOND, THIRD, ETC. (SPECIFY)		32. PRENATAL VISITS - TOTAL NUMBER (IF NONE, SO STATE)		33. BIRTH WEIGHT (SPECIFY UNIT)	
				34. CLINICAL ESTIMATE OF GESTATION (WEEKS)	
35A. PLURALITY - SINGLE, TWIN, TRIPLET, ETC. (SPECIFY)		35B. IF NOT SINGLE BIRTH - BORN, FIRST, SECOND, THIRD, ETC. (SPECIFY)		35C. IF NOT SINGLE BIRTH - BORN, FIRST, SECOND, THIRD, ETC. (SPECIFY)	
36. APGAR SCORE A - 1 MIN. B - 5 MIN.		37A. MOTHER TRANSFERRED PRIOR TO DELIVERY? <input type="checkbox"/> NO <input type="checkbox"/> YES IF YES, ENTER NAME OF FACILITY TRANSFERRED FROM:		37B. INFANT TRANSFERRED? <input type="checkbox"/> NO <input type="checkbox"/> YES IF YES, ENTER NAME OF FACILITY TRANSFERRED TO:	
36C. WAS BLOOD DRAWN FOR NEWBORN SCREENING? <input type="checkbox"/> YES <input type="checkbox"/> NO					
38A. MEDICAL RISK FACTORS FOR THE PREGNANCY (Circle all that apply)		40. COMPLICATIONS OF LABOR AND/OR DELIVERY (Circle all that apply)		42. CONGENITAL ANOMALIES OF CHILD: (Circle all that apply)	
Anemia (Hct. <30/Hgb. <10) 01		Febrile (>100° F. or 38° C.) 02		Anencephalus 01	
Cardiac disease 02		Meconium, moderate/heavy 03		Spina bifida/Meningocele 02	
Acute or chronic lung disease 03		Premature rupture of membranes (>1 hour) 04		Hydrocephalus 03	
Diabetes 04		Abruptio placenta 05		Microcephalus 04	
Genital Herpes 05		Placenta previa 06		Other central nervous system anomalies (Specify) 05	
Hydramnios/Oligohydramnios 06		Other excessive bleeding 07		Heart malformations 06	
Hemoglobinopathy 07		Seizures during labor 08		Other circulatory/respiratory anomalies (Specify) 07	
Hypertension, chronic 08		Precipitous labor (<3 hours) 09		Rectal atresia/stenosis 08	
Hypertension, pregnancy-associated 09		Prolonged labor (>20 hours) 10		Tracheo-esophageal fistula/Esoophageal atresia 09	
Eclampsia 10		Dysfunctional labor 11		Omphalocele/Gastroschisis 10	
Incompetent cervix 11		Malpresentation 12		Other gastrointestinal anomalies (Specify) 11	
Previous infant 4000+ grams 12		Cephalopelvic disproportion 13		Malformed genitalia 12	
Previous preterm or small-for-gestational-age infant 13		Cord prolapse 14		Renal agenesis 13	
Renal disease 14		Fetal distress 15		Other urogenital anomalies (Specify) 14	
Rh sensitization 15		None 16		Cleft lip/palate 15	
Uterine bleeding 16		Other (Specify) 17		Polydactyly/Syndactyly/Adactyly 16	
None 17				Club foot 17	
Other (Specify) 18				Diaphragmatic hernia 18	
38B. OTHER RISK FACTORS FOR THIS PREGNANCY (Complete all items)		41. METHOD OF DELIVERY (Circle all that apply)		Other musculoskeletal/integumental anomalies (Specify) 19	
Tobacco use during pregnancy Yes No		Vaginal 01		Down's syndrome 20	
Average number of cigarettes per day		Vaginal birth after previous C-section 02		Other chromosomal anomalies (Specify) 21	
Alcohol use during pregnancy Yes No		Primary C-section 03		None 00	
Average number of drinks per week		Repeat C-section 04		Other (Specify) 22	
Weight gained during pregnancy lbs.		Forceps 05			
		Vacuum 06			
39. OBSTETRIC PROCEDURES (Circle all that apply)		42. ABNORMAL CONDITIONS OF THE NEWBORN (Circle all that apply)			
Amniocentesis 01		Anemia (Hct. <39/Hgb. <13) 01			
Electronic fetal monitoring 02		Birth Injury 02			
Induction of labor 03		Fetal alcohol syndrome 03			
Stimulation of labor 04		Hyaline membrane disease/RDS 04			
Tocolysis 05		Meconium aspiration syndrome 05			
Ultrasound 06		Assisted ventilation <30 min. 06			
None 00		Assisted ventilation ≥30 min. 07			
Other (Specify) 07		Seizures 08			
		None 00			
		Other (Specify) 09			

**APPENDIX G**  
**STATE OF DELAWARE CERTIFICATE OF DEATH**

DOC. NO.  
35-05-20-96/07/03

OFFICE OF  
VITAL  
STATISTICS

**CERTIFICATE OF DEATH**

*State of Delaware* (107)

LOCAL REG NO.

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

STATE FILE NUMBER

**DECEDENT**

TO FUNERAL DIRECTOR: After certificate has been signed by attending physician and completely filled in by funeral director, remove carbons, file parts 1 and 2 with Registrar within 72 hrs. after death and then use Burial-Transit Permit for disposition of body.

1. DECEDENT'S NAME (FIRST, MIDDLE, LAST)			2. SEX		3. DATE OF DEATH (MO., DAY, YR)	
4. SOCIAL SECURITY NO.		5A. AGE (YRS)	5B. UNDER 1 YEAR MONTHS      DAYS	5C. UNDER 1 DAY HOURS      MINUTES	6. DATE OF BIRTH (MO., DAY, YR.)	
7. BIRTHPLACE (CITY AND STATE OR FOREIGN COUNTRY)						
8. WAS DECEDENT EVER IN U.S. ARMED FORCES? <input type="checkbox"/> YES <input type="checkbox"/> NO		9. ANATOMICAL GIFT <input type="checkbox"/> CONSENT GRANTED <input type="checkbox"/> NOT GRANTED		10A. PLACE OF DEATH (CHECK ONLY ONE, SEE INSTRUCTIONS ON OTHER SIDE) <b>HOSPITAL</b> <input type="checkbox"/> INPATIENT <input type="checkbox"/> ER/OUTPATIENT <input type="checkbox"/> DOA <b>OTHER</b> <input type="checkbox"/> NURSING HOME <input type="checkbox"/> RESIDENCE <input type="checkbox"/> OTHER (SPECIFY)		
10B. FACILITY NAME (IF NOT INSTITUTION GIVE STREET AND NUMBER)			10C. CITY, TOWN, OR LOCATION OF DEATH			10D. COUNTY OF DEATH
11. MARITAL STATUS — MARRIED, NEVER MARRIED, WIDOWED, DIVORCED (SPEC.)		12. MOST RECENT SPOUSE <input type="checkbox"/> LIVING <input type="checkbox"/> DECEASED (MAIDEN NAME IF WIFE)		13A. DECEDENT'S USUAL OCCUPATION (KIND OF WORK DURING MOST OF WORKING LIFE. DO NOT USE RETIRED)		13B. KIND OF BUSINESS/INDUSTRY
14A. RESIDENCE — STATE		14B. COUNTY		14C. CITY, TOWN, OR LOCATION		14D. STREET AND NUMBER
14E. INSIDE CITY LIMITS? (YES OR NO)		14F. ZIP CODE		15. WAS DECEDENT OF HISPANIC ORIGIN? (SPECIFY NO OR YES, SPECIFY CUBAN, MEXICAN, PUERTO RICAN, ETC. <input type="checkbox"/> NO <input type="checkbox"/> YES (Specify))		16. RACE — AMERICAN INDIAN, BLACK, WHITE, ETC. (SPECIFY)
						17. DECEDENT'S EDUCATION (SPECIFY ONLY HIGHEST GRADE COMPLETED) ELEMENTARY/SECONDARY (9-12)    COLLEGE (1-4 OR 5+)

**PARENTS**

18. FATHER'S NAME (FIRST, MIDDLE, LAST)		19. MOTHER'S NAME (FIRST, MIDDLE, MAIDEN SURNAME)	
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**INFORMANT**

20A. INFORMANT'S NAME (TYPE/PRINT)		20B. MAILING ADDRESS (STREET AND NUMBER, RURAL ROUTE NUMBER, CITY OR TOWN, STATE, ZIP CODE)	
------------------------------------	--	---	--

**DISPOSITION**

21A. METHOD OF DISPOSITION <input type="checkbox"/> BURIAL <input type="checkbox"/> CREMATION <input type="checkbox"/> REMOVAL FROM STATE <input type="checkbox"/> DONATION <input type="checkbox"/> OTHER (SPECIFY)		21B. PLACE OF DISPOSITION (NAME OF CEMETERY, CREMATORY, OR OTHER PLACE)		21C. LOCATION (CITY, TOWN, STATE)	
22A. SIGNATURE OF FUNERAL DIRECTOR		22B. LICENSE NUMBER OF LICENSED FUNERAL HOME		22C. NAME AND ADDRESS OF FACILITY	

**PRONOUNCING OFFICIAL**

ITEMS 27-29 MUST BE COMPLETED BY PHYSICIAN OR NURSE WHO PRONOUNCES DEATH

SEE DEFINITION ON OTHER SIDE

**CERTIFIER**

24. REGISTRAR'S SIGNATURE		25. DATE FILED (MO., DAY, YR.)			
26A. TO THE BEST OF MY KNOWLEDGE, DEATH OCCURRED AT THE TIME, DATE, AND PLACE STATED SIGNATURE AND TITLE		26B. LICENSE NUMBER		26C. DATE SIGNED (MO., DAY, YR.)	
27. TIME OF DEATH <input type="checkbox"/> AM <input type="checkbox"/> PM		28. DATE PRONOUNCED (MO., DAY, YR.)		29. WAS CASE REFERRED TO MEDICAL EXAMINER? (YES OR NO)	
30A. CERTIFIER (CHECK ONLY ONE) <input type="checkbox"/> CERTIFYING PHYSICIAN (Physician certifying cause of death when another physician has pronounced death and completed item 26) To the best of my knowledge, death occurred due to the cause(s) and manner as stated. <input type="checkbox"/> PRONOUNCING AND CERTIFYING PHYSICIAN (Physician both pronouncing death and certifying the cause of death) To the best of my knowledge, death occurred at the time, date, and place, and due to the cause(s) and manner as stated. <input type="checkbox"/> MEDICAL EXAMINER On the basis of examination and/or investigation, in my opinion, death occurred at the time, date, and place, and due to the cause(s) and manner as stated.		30B. SIGNATURE AND TITLE OF CERTIFIER		30C. LICENSE NUMBER	
				30D. DATE SIGNED (MO., DAY, YR.)	
31. NAME AND ADDRESS OF CERTIFIER WHO COMPLETED CAUSE OF DEATH (ITEM 40) (TYPE/PRINT)					

TO HOSPITAL OR PHYSICIAN — DELAWARE LAW REQUIRES THAT THE DEATH CERTIFICATE BE EXECUTED WITHIN 72 HOURS AFTER DEATH

32A. WAS AN AUTOPSY PERFORMED? <input type="checkbox"/> YES <input type="checkbox"/> NO		33. MANNER OF DEATH <input type="checkbox"/> NATURAL <input type="checkbox"/> ACCIDENT <input type="checkbox"/> SUICIDE <input type="checkbox"/> HOMICIDE <input type="checkbox"/> PENDING INVESTIGATION <input type="checkbox"/> UNDETERMINED		34. INJURY AT WORK? <input type="checkbox"/> YES <input type="checkbox"/> NO		35. DATE OF INJURY (MO., DAY, YR.)		37. DESCRIBE HOW INJURY OCCURRED			
32B. WERE AUTOPSY FINDINGS AVAILABLE PRIOR TO COMPLETION OF CAUSE OF DEATH? <input type="checkbox"/> YES <input type="checkbox"/> NO						36. TIME OF INJURY <input type="checkbox"/> AM <input type="checkbox"/> PM		38. PLACE OF INJURY (AT HOME, FARM, STREET, FACTORY, OFFICE BUILDING, ETC. (SPECIFY))			
								39. LOCATION (STREET AND NUMBER OR RURAL ROUTE NUMBER, CITY OR TOWN, STATE)			
40. PART I DO NOT ENTER THE MODE OF DYING SUCH AS CARDIAC OR RESPIRATORY ARREST, SHOCK, OR HEART FAILURE. LIST ONLY ONE CAUSE PER EACH LINE.										APPROXIMATE INTERVAL BETWEEN ONSET AND DEATH	
IMMEDIATE CAUSE (FINAL DISEASE, INJURY OR CONDITION THAT IN YOUR OPINION CAUSED THE DEATH)				IMMEDIATE CAUSE (A)							
				DUE TO (B)							
SEQUENTIALLY LIST CONDITIONS, IF ANY, LEADING TO IMMEDIATE CAUSE. ENTER UNDERLYING CAUSE (DISEASE OR INJURY WHICH INITIATED EVENTS RESULTING IN DEATH) LAST				DUE TO (C)							
				DUE TO (D)							
PART II OTHER SIGNIFICANT CONDITIONS— CONTRIBUTING TO CAUSE OF DEATH											

REV. 8/96

(1) ORIGINAL COPY—STATE

**APPENDIX H**  
**STATE OF DELAWARE CERTIFICATE OF FETAL DEATH**

DOC. NO.  
35-05-02-88-09-10

OFFICE OF  
VITAL  
STATISTICS

**CERTIFICATE OF FETAL DEATH (STILLBIRTH)**

*State of Delaware* (107)

DEPARTMENT OF HEALTH AND SOCIAL SERVICES

STATE FILE NUMBER

<b>FETUS</b>	1. NAME OF FETUS (FIRST, MIDDLE, LAST)		2. SEX OF FETUS		3. DATE OF DELIVERY		4. TIME OF DELIVERY			
						M				
	5A. NAME OF FACILITY (IF NOT AN INSTITUTION GIVE STREET AND NUMBER)			5B. CITY, TOWN, OR LOCATION		5C. COUNTY OF DELIVERY				
	6A. MOTHER'S NAME (FIRST, MIDDLE, LAST)			6B. MAIDEN SURNAME		7. DATE OF BIRTH (MO., DAY, YR.)				
<b>PARENTS</b>	8A. RESIDENCE STATE		8B. COUNTY		8C. CITY, TOWN, OR LOCATION		8D. STREET AND NUMBER			
	8E. INSIDE CITY LIMITS WILM., NEWARK, DOVER ONLY <input type="checkbox"/> YES <input type="checkbox"/> NO		8F. ZIP CODE		9. FATHER'S NAME (FIRST, MIDDLE, LAST)		10. DATE OF BIRTH (MO., DAY, YR.)			
<b>CAUSE</b>	11. PART I. FETAL DEATH WAS CAUSED BY: FETAL OR MATERNAL CONDITION DIRECTLY CAUSING FETAL DEATH						ENTER ONLY ONE CAUSE PER LINE (A), (B), (C)		SPECIFY FETAL OR MATERNAL	
	FETAL AND/OR MATERNAL CONDITIONS, IF ANY, GIVING RISK TO THE IMMEDIATE CAUSE (A), STATING THE UNDERLYING CAUSE LAST.						(A) IMMEDIATE CAUSE			
(B) DUE TO, OR AS A RESULT OF										
							(C) DUE TO, OR AS A CONSEQUENCE OF			
	12A. PART II. OTHER SIGNIFICANT CONDITIONS OF FETUS OR MOTHER WHICH MAY HAVE CONTRIBUTED TO FETAL DEATH BUT NOT RESULTING IN THE UNDERLYING CAUSE GIVEN IN PART I				12B. FETUS DIED BEFORE LABOR, DURING LABOR OR DELIVERY, UNKNOWN (SPEC.)		13. AUTOPSY (SPECIFY YES OR NO)			
<b>CERTIFIER</b>	14. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE DATE SHOWN AND THAT THE FETUS WAS BORN DEAD				15. SIGNATURE		16. DATE SIGNED			
	15C. MAILING ADDRESS				16. IF ATTENDED BY A PHYSICIAN (TYPE/PRINT NAME)					
	17A. BURIAL, CREMATION, OTHER				17B. NAME OF CEMETERY OR CREMATORY		17C. LOCATION (CITY, TOWN, COUNTY) (STATE)			
	18A. DATE RECEIVED BY REGISTRAR		18B. REGISTRAR'S SIGNATURE		19. HEALTH DEPARTMENT'S SIGNATURE		ADDRESS			

**INFORMATION FOR STATISTICAL USE ONLY**

<b>MOTHER</b>	20. OF HISPANIC ORIGIN (SPECIFY YES OR NO. IF YES, SPECIFY CUBAN, MEXICAN, PUERTO RICAN, ETC. BELOW)		21. RACE - AMERICAN INDIAN, WHITE, BLACK, ETC. (SPECIFY BELOW)		22. EDUCATION (SPECIFY ONLY HIGHEST GRADE COMPLETED)		23. OCCUPATION AND BUSINESS/INDUSTRY (WORKED DURING LAST YEAR)		
	20A. <input type="checkbox"/> YES <input type="checkbox"/> NO		21A.		22A.		23A.		
<b>FATHER</b>	20B. <input type="checkbox"/> YES <input type="checkbox"/> NO		21B.		22B.		23B.		
	20C. <input type="checkbox"/> YES <input type="checkbox"/> NO		21C.		22C.		23C.		
PREGNANCY HISTORY (COMPLETE EACH SECTION)					25. MOTHER MARRIED? (AT DELIVERY, CONCEPTION, OR ANY TIME BETWEEN)(YES OR NO)		26. DATE LAST NORMAL MENSES BEGAN (MO., DAY, YR.)		
LIVE BIRTHS			OTHER TERMINATIONS (SPONTANEOUS AND INDUCED AT ANY TIME AFTER CONCEPTION)		27. MONTH OF PREGNANCY PRENATAL CARE BEGAN —FIRST, SECOND, THIRD, ETC. (SPECIFY)		28. PRENATAL VISITS - TOTAL NUMBER (IF NONE, SO STATE)		
24A. NOW LIVING		24B. NOW DEAD		24D. (DO NOT INCLUDE THIS FETUS)		29. WEIGHT OF FETUS (SPECIFY UNIT)		30. CLINICAL ESTIMATE OF GESTATION (WEEKS)	
NUMBER _____		NUMBER _____		NUMBER _____				31. DID MOTHER HAVE BLOOD TEST FOR SYPHILIS? (SPECIFY YES OR NO)	
<input type="checkbox"/> NONE		<input type="checkbox"/> NONE		<input type="checkbox"/> NONE					
24C. DATE OF LAST LIVE BIRTH (MO., DAY, YR.)		24E. DATE OF LAST OTHER TERMINATION (MO., DAY, YR.)		32A. PLURALITY - SINGLE, TWIN, TRIPLET, ETC. (SPECIFY)		32B. NOT SINGLE BIRTH - BORN FIRST, SECOND, THIRD, ETC. (SPECIFY)			

REV. 1/89

ORIGINAL COPY - STATE



**APPENDIX I**  
**STATE OF DELAWARE CERTIFICATE OF MARRIAGE**

1

TO OFFICIANT - PLEASE COMPLETE LOWER PART OF FORM AND MAIL WITHIN 4 DAYS, COPIES 1, 3, AND 4  
TO: OFFICE OF VITAL STATISTICS, P.O. Box 637, Dover, DE 19903.

OFFICE OF VITAL STATISTICS		CERTIFICATE OF MARRIAGE <b>State of Delaware</b> DIVISION OF PUBLIC HEALTH				STATE FILE NUMBER	
LOCAL REGISTRAR'S NO.		LICENSE NO. <b>58801</b>		NO. LICENSE APPLICATION		PLACE LICENSE ISSUED	
GROOM				BRIDE			
NAME FIRST MIDDLE LAST				NAME FIRST MIDDLE LAST			
RESIDENCE STREET OR NUMBER, CITY				RESIDENCE STREET OR NUMBER, CITY			
STATE		ZIP		COUNTY		STATE ZIP COUNTY	
DATE OF BIRTH		AGE		DATE OF BIRTH		AGE	
BIRTHPLACE (STATE OR FOREIGN COUNTRY)				BIRTHPLACE (STATE OR FOREIGN COUNTRY)			
WE HEREBY CERTIFY THAT THE INFORMATION PROVIDED IS CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF AND THAT WE ARE FREE TO MARRY UNDER THE LAWS OF THIS STATE							
SIGNATURE OF GROOM <b>X</b>				SIGNATURE OF BRIDE <b>X</b>			
FATHER	NAME FIRST MIDDLE LAST			FATHER	NAME FIRST MIDDLE LAST		
	BIRTHPLACE (STATE OR FOREIGN COUNTRY)				BIRTHPLACE (STATE OR FOREIGN COUNTRY)		
MOTHER	MAIDEN NAME FIRST MIDDLE LAST			MOTHER	MAIDEN NAME FIRST MIDDLE LAST		
	BIRTHPLACE (STATE OR FOREIGN COUNTRY)				BIRTHPLACE (STATE OR FOREIGN COUNTRY)		
<p>I hereby certify that on the _____ day of _____, 19____, _____ M. the aforementioned persons were by me united in marriage at _____ (CITY, TOWN, OR LOCATION) County of _____, in accordance with the Laws of the State of Delaware.</p> <p>Signature of Clergy or Other Official ▶ _____ TITLE _____</p> <p>RESIDENCE-STATE _____ COUNTY _____</p> <p>Witnesses (two are required.) 1. NAME _____ RESIDENCE _____</p> <p>2. NAME _____ RESIDENCE _____</p> <p>3. NAME _____ RESIDENCE _____</p> <p>REGISTRAR'S SIGNATURE _____ DATE RECEIVED BY LOCAL REGISTRAR _____</p>							

VALID ONLY IN THE STATE OF DELAWARE

STATE FILE COPY

	Number of this Marriage - 1st, 2nd, etc. (Specify below)	If Previously Married			Race/American Indian, Black, White, etc. (Specify below)	Education (Specify highest grade completed)	
		Date of First Marriage (Mth./Day/Year)	Last Marriage Ended by Death Divorce or Annul. (Specify below)	Last Marriage Ended on: Mth./Day/Year		Elementary/Secondary (0-12)	College (1-4 or 5+)
GROOM							
BRIDE							

# APPENDIX J

## STATE OF DELAWARE CERTIFICATE OF DIVORCE OR ANNULMENT

TYPE/PRINT  
IN  
PERMANENT  
BLACK INK

### CERTIFICATE OF DIVORCE OR ANNULMENT

## State of Delaware

OFFICE OF  
VITAL STATISTICS

DIVISION OF PUBLIC HEALTH

State File No.

<b>HUSBAND</b>	1. HUSBAND'S NAME (First, Middle, Last)			
	2a. RESIDENCE - STREET OR NUMBER, CITY		2b. COUNTY	
	2c. STATE	ZIP	3. BIRTHPLACE (State or Foreign Country)	4. DATE OF BIRTH (Month, Day, Year)
<b>WIFE</b>	5a. WIFE'S NAME (First, Middle, Last)			5b. MAIDEN SURNAME
	6a. RESIDENCE - STREET OR NUMBER, CITY		6b. COUNTY	
	6c. STATE	ZIP	7. BIRTHPLACE (State or Foreign Country)	8. DATE OF BIRTH (Month, Day, Year)
<b>MARRIAGE</b>	9a. PLACE OF THIS MARRIAGE - CITY, TOWN, OR LOCATION	9b. COUNTY	9c. STATE OR FOREIGN COUNTRY	10. DATE OF THIS MARRIAGE (Month, Day, Year)
	11. DATE COUPLE LAST RESIDED IN SAME HOUSEHOLD	12. NUMBER OF CHILDREN UNDER 18 IN THIS HOUSEHOLD AS OF THE DATE IN ITEM 11 Number _____ None _____		13. PETITIONER ( ) Husband ( ) Wife ( ) Both ( ) Other (Specify)
<b>ATTORNEY</b>	14a. NAME OF PETITIONER'S ATTORNEY (Type/Print)		14b. ADDRESS (Street and Number or P.O. Box Number, City or Town, State, Zip Code)	
	15. I CERTIFY THAT THE MARRIAGE OF THE NAMED PERSONS WAS DISSOLVED (Month, Day, Year)		16. TYPE OF DECREE - Divorce or Annulment (Specify)	
<b>DECREE</b>	18. NUMBER OF CHILDREN UNDER 18 WHOSE PHYSICAL CUSTODY WAS AWARDED TO:  Husband _____ Wife _____ Joint (Husband/Wife) _____ Other _____ ( ) No Children CONTESTED <input type="checkbox"/> YES <input type="checkbox"/> NO		19. COUNTY OF DECREE	
	21. SIGNATURE OF CERTIFYING OFFICIAL		23. DATE SIGNED (Month, Day, Year)	
	22. TITLE OF CERTIFYING OFFICIAL		20. TITLE OF COURT	

## STATE FILE COPY

ATTORNEY - Complete items 1-14b and 24-27 when filing petition and leave with Clerk of the Court.  
CLERK OF THE COURT - After final decree complete item 15-23 and forward to:  
Office of Vital Statistics, P.O. Box 637, DOVER, DELAWARE 19903

	24. Number of this Marriage - 1st, 2nd, etc. (Specify below)	25. If Previously Married			26. Race/American Indian, Black, White, etc. (Specify below)	27. Education (Specify highest grade completed)	
		Date of First Marriage (Mth./Day/Year)	Last Marriage Ended by Death, Divorce or Annulment (Specify below)	Last Marriage Ended on: (Mth./Day/Year)		Elementary/Secondary (0-12)	College (1-4 or 5+)
<b>HUSBAND</b>	24a.	25a.	25b.	25c.	26a.	27a.	
<b>WIFE</b>	24b.	25d.	25e.	25f.	26b.	27b.	

## APPENDIX K

### STATE OF DELAWARE REPORT OF INDUCED TERMINATION OF PREGNANCY



DELAWARE HEALTH  
AND SOCIAL SERVICES

#### REPORT OF INDUCED TERMINATION OF PREGNANCY

1. FACILITY NAME (if not clinic or hospital, give address)		2. CITY, TOWN, OR LOCATION OF PREGNANCY TERMINATION		3. COUNTY OF PREGNANCY TERMINATION													
4. FORM NUMBER		5. AGE LAST BIRTHDAY		6. MARRIED? <input type="checkbox"/> Yes <input type="checkbox"/> No													
7. DATE OF PREGNANCY TERMINATION (Month, Day, Year)		8a. RESIDENCE - STATE		8b. COUNTY													
8c. CITY, TOWN, OR LOCATION		8d. ZIP CODE															
9. OF HISPANIC ORIGIN? (Specify No or Yes - If yes, specify Cuban, Mexican, Puerto Rican, etc.)  <input type="checkbox"/> No <input type="checkbox"/> Yes Specify: _____		10. RACE <input type="checkbox"/> White <input type="checkbox"/> Black <input type="checkbox"/> Other (Specify) _____		11. EDUCATION (Specify only highest grade completed)  Elementary/Secondary (0-12)   College (1-4 or 5+)													
12. DATE LAST NORMAL MENSES BEGAN (Month, Day, Year)		13. CLINICAL ESTIMATE OF GESTATION (Weeks)		14. PREVIOUS PREGNANCIES (Complete each section)													
				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="padding: 5px;">LIVE BIRTHS</th> <th colspan="2" style="padding: 5px;">OTHER TERMINATIONS</th> </tr> <tr> <td style="padding: 5px;">14a. Now Living</td> <td style="padding: 5px;">14b. Not Living</td> <td style="padding: 5px;">14c. Spontaneous</td> <td style="padding: 5px;">14d. Induced (Do not include this termination)</td> </tr> <tr> <td style="padding: 5px;">Number _____ <input type="checkbox"/> None</td> <td style="padding: 5px;">Number _____ <input type="checkbox"/> None</td> <td style="padding: 5px;">Number _____ <input type="checkbox"/> None</td> <td style="padding: 5px;">Number _____ <input type="checkbox"/> None</td> </tr> </table>		LIVE BIRTHS		OTHER TERMINATIONS		14a. Now Living	14b. Not Living	14c. Spontaneous	14d. Induced (Do not include this termination)	Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None
LIVE BIRTHS		OTHER TERMINATIONS															
14a. Now Living	14b. Not Living	14c. Spontaneous	14d. Induced (Do not include this termination)														
Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None	Number _____ <input type="checkbox"/> None														
15. TYPE OF TERMINATION PROCEDURE (Check only one) <div style="margin-top: 10px;"> <input type="checkbox"/> Suction Curettage  <input type="checkbox"/> Medical (Nonsurgical), Specify Medication(s) _____  <input type="checkbox"/> Dilation and Evacuation (D&amp;E)  <input type="checkbox"/> Intra-Uterine Instillation (Saline or Prostaglandin)  <input type="checkbox"/> Sharp Curettage (D&amp;C)  <input type="checkbox"/> Hysterotomy/Hysterectomy  <input type="checkbox"/> Other (Specify) _____ </div>																	

Mail completed forms to:  
Bureau of Health Planning and Resources Management  
P.O. Box 637  
Federal and Water Streets  
Dover, DE 19903



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